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SOCOM Training and Rehearsal System (STRS) Process Improvement and Decision Support System (DSS) Development



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Discussion Sequence

- **Why the Study?**
- **Objectives**
- **Areas of Inquiry**
- **Study Products**
- **Observations**
- **Recommendations**
- **Decision Support System**

Why this Study?

- **SOCOM Board of Directors (BOD) requested a complete lay down of STS**
 - POM justification
 - Articulate return-on-investment
 - Ensure existing resources expended efficiently
 - Achieve global training, planning, and mission rehearsal capability in a common, distributed, and interoperable framework focused on supporting SOF warfighters
- **Substantial SOCOM Investment**
 - AFSOC – Approximately 75M over past two FYs
 - USASOC – MH-47 & MH-6 simulators
 - SOCOM STRS is > 600M worth of ATDs (and support structure) and connectivity

Objectives

- **Improve Training and Force Readiness**
- **Independent Assessment Of Training/Rehearsal Delivery Processes Employed by 58 SOW, 19 SOS, and 160th SOAR**
 - Identify Potential Improvements To Maximize Resources
- **Improve STRS Management**
 - Evaluate Inter-relationships and resulting support provided to SOF aircrew training programs by AETC, AFSOC, USASOC, and SOCOM Resource Sponsors
 - Optimize MFP-11 Resource Utilization
 - Improve Metrics Available to SOCOM
- **Improve Business Case Development Capability**
 - Simulation-based Decision Support System
 - Provide Solid Irrefutable Data To Support Simulator LCC Decisions
- **Identify Standardization/Reuse/Interoperability Opportunities Prepare for Training Transformation (T2)**
- **Seamlessly plan for and conduct Live-Virtual-Constructive activities (plan, train, rehearse, execute, and AAR) with Army, Navy, Air Force, Marines, and Dept of Homeland Security organizations in days or hours instead of months**

Areas of Inquiry

- **POM Development/ATD Funding**
 - Sustainment and Upgrade of Training Systems
 - STRS Configuration Management
- **Simulator Support Database Development**
- **SOF Aircrew Training Development and Delivery**
 - Student Input
 - Curriculum Management
 - Customer Satisfaction – Students and Units
- **STRS Policy Development**
- **Strategic Planning**
 - Preparation and Support for T2 and JNTC
 - Integration of CV-22

Phase I Study Products

- 1. Final Report containing Observations & Recommendations for three specific organizations**
 - SOCOM
 - AFSOC
 - 58SOW/TRS
- 2. A Decision Support Model was developed for “What-If” analysis of the training pipeline for the CV-22 (proposed) and MH-53 (current) weapon systems**
 - The model can identify the impact (time, instructors, resources, etc) with the ramp up and ramp down of students as the CV-22 comes on line and the MH-53 is phased out at Kirtland
- 3. An additional Process Model for Database Development was prototyped and demonstrated to the 58TRS – this Model may be used for manpower validation (contract wide) in conjunction with the ATARS II re-compete**

Study Recommendations - SOCOM

- **Establish a SOCOM Training Division within a J-7 Staff Directorate**
- **Recapitalize the AFSOC ATDs with the 2006 POM**
- **Develop the STRS Campaign Plan 2015**
- **Conduct a cost-benefit analysis of establishing a AF SOF training organization (schoolhouse) under AFSOC.**
 - Institute policy of personnel selectivity.

Study Recommendations - SOCOM

- **Consolidate the C2 of all activities in support of SOF database development under Training Division.**
 - Consolidate all DB support under one contract.
- **Establish a SOF Training MOU between SOCOM and AETC**
- **Re-establish Vision Outlined in SOCOM M&S Master Plan**
- **Continue STRS study with a Phase II effort (19th,160th SOAR) Conducted Simultaneously with Execution of Report Recommendations.**

Study Recommendations – 58SOW

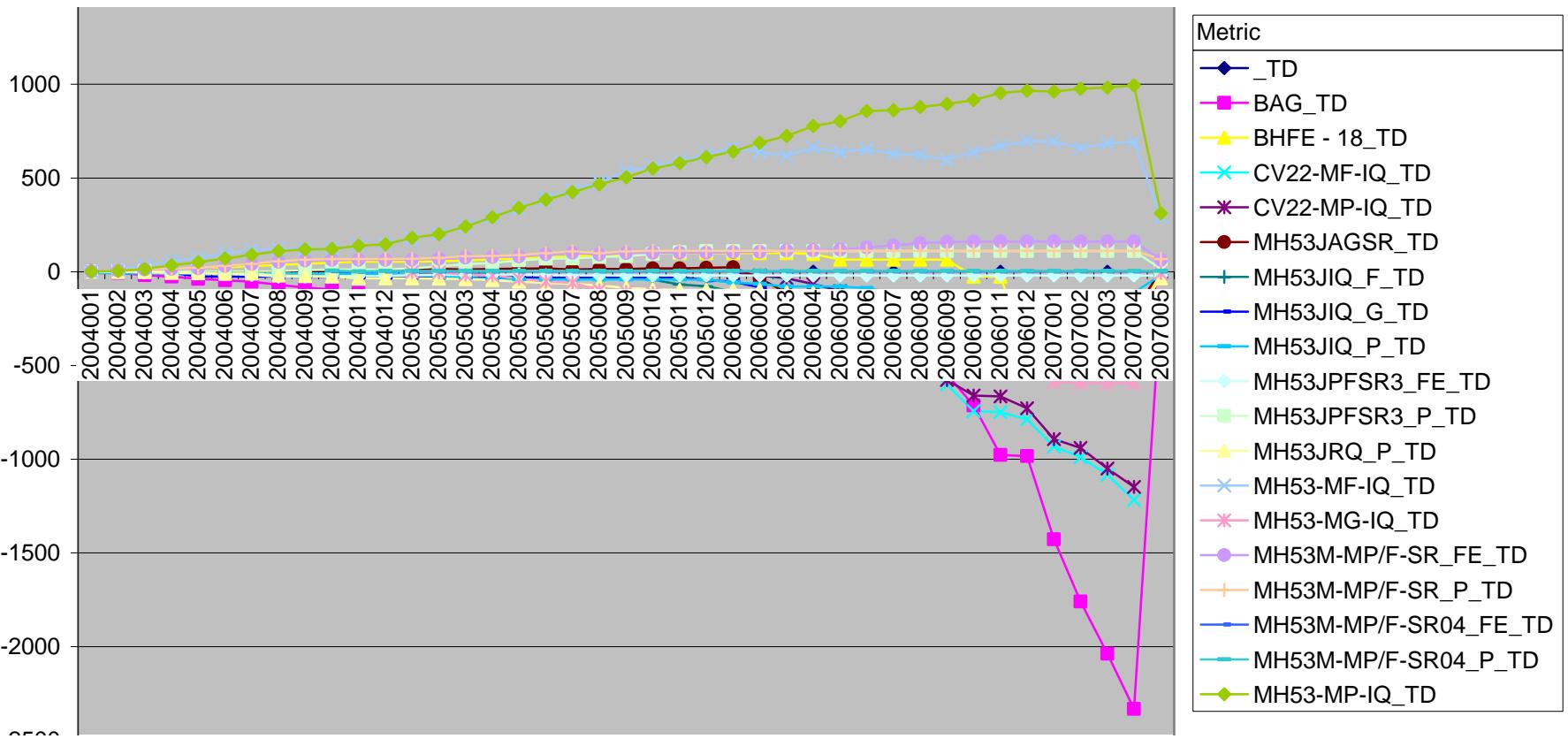
- **Training Management**
 - Employ a single training scheduling/information system.
 - Develop and operate a virtual white board for ATD status.
- **Student Management**
 - Modify the NPS student pipeline to have all NPS SOF aircrew training students report directly to 58th TRS upon graduation from EAUC.
 - Assign a NPS Military Training Flight training monitor to full time duty in the 58 SOW flying squadrons to manage day to day training requirements for NPS students
 - Conduct all NPS IQT as part of the EAU training program currently conducted at Lackland AFB, Medina Annex.
- **Database Development Process**
 - Establish better government database oversight - *Implemented*
 - Institute network solution for database file transfer - *Implemented*

SOCOM Training Analysis Tool (STAT)



STAT Sample Output

Cumulative Days Behind (-) or Ahead (+) of schedule by Course (i.e. initial qual. Pilot, Sim refresher FE, BAG, BFHE, etc. – i.e. schoolhouse performance)

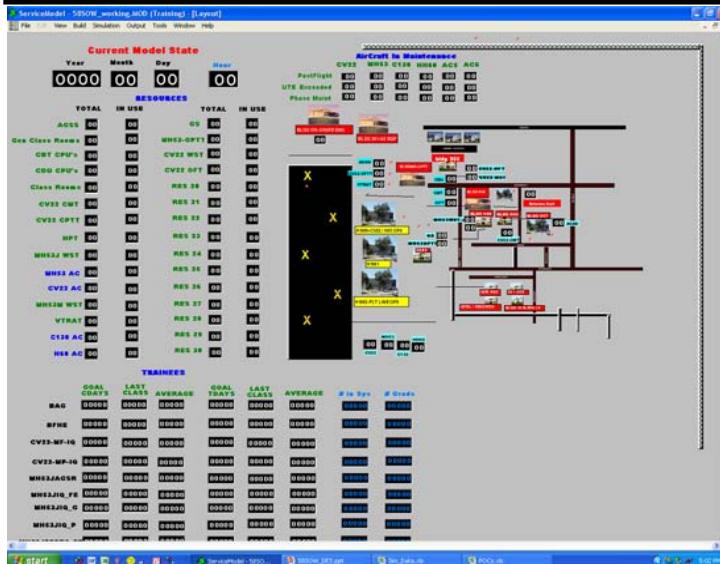


STAT Model Configuration

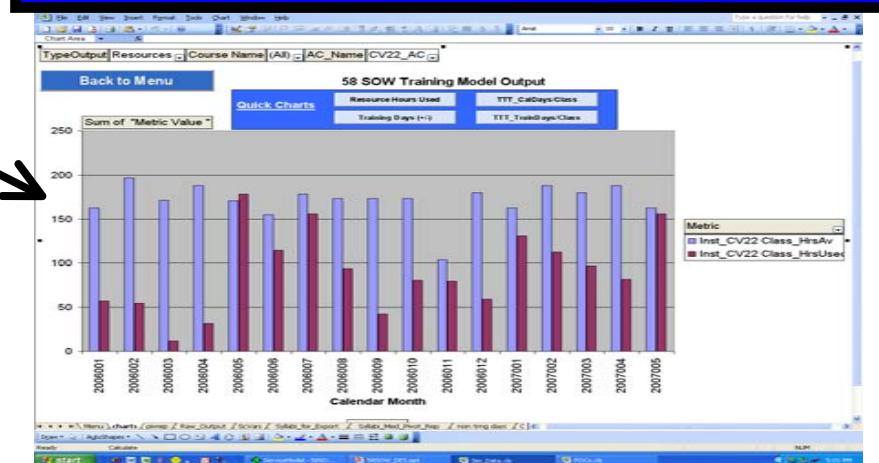
Model Structure

**(1) EXCEL™ /
Visual Basic
User Interface**

**(2) Discrete-Event
Simulation Engine**



**(3) Easily Reconfigurable
EXCEL™ Output Charts**



STAT Model Example

Scenario :

MH-53 Gunner Initial Qual. Students are taking too long to Graduate !

Possible Issues:

- Complaint about Instructors not available**
- Complaint about not enough MH-53 training aircraft**
- Simulators (MH-53 WST] delaying pilots due to poor availability which offloads more work to training aircraft**

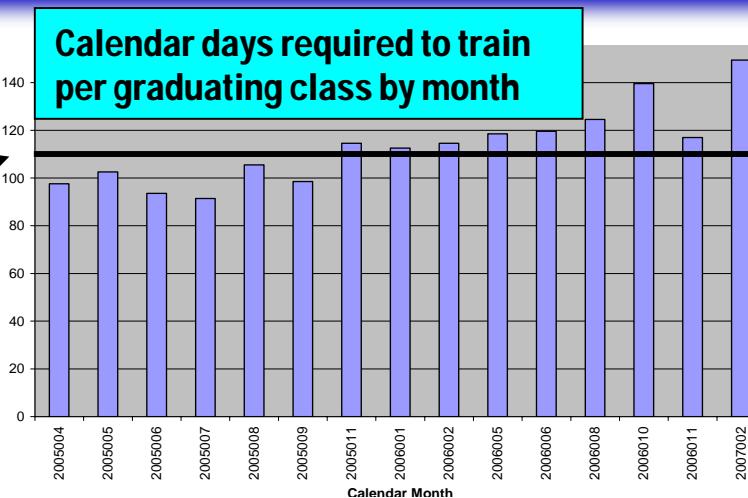
Solution Approach:

- Model current situation using STAT and look at Gunner student time to train**
- Manipulate “controllable” parameters to improve situation**

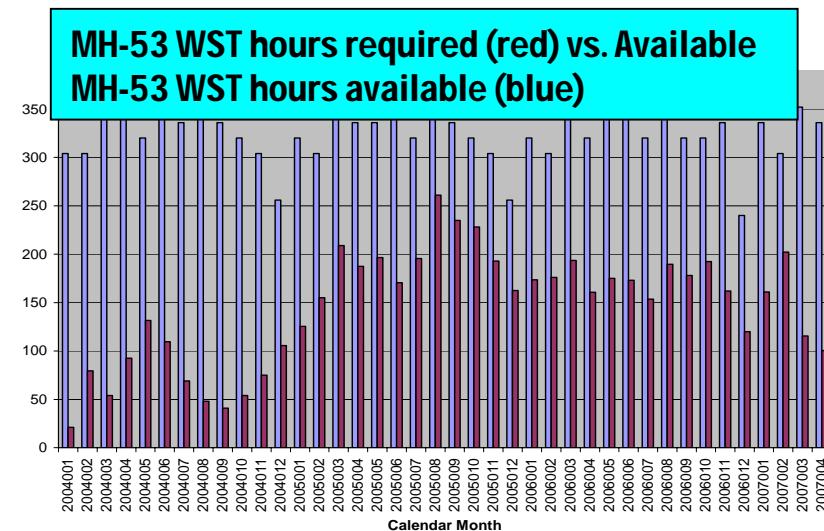
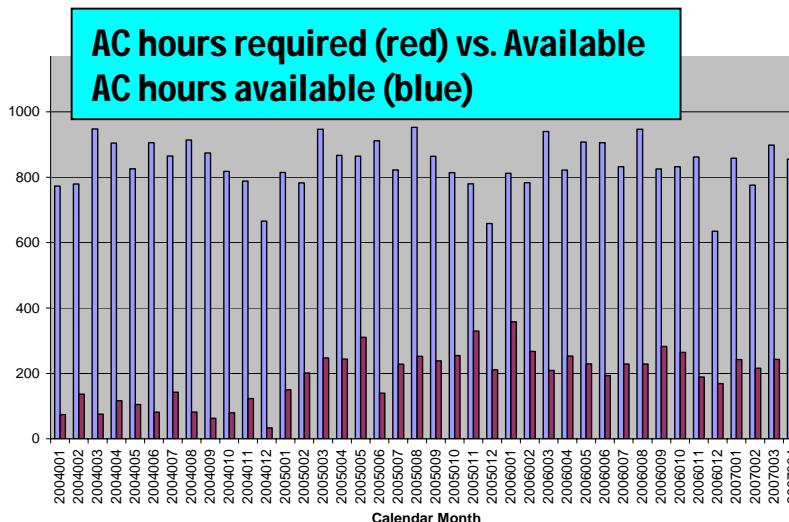
STAT Model Example

Current Situation Yields:

Average training time of 113.3 calendar days:

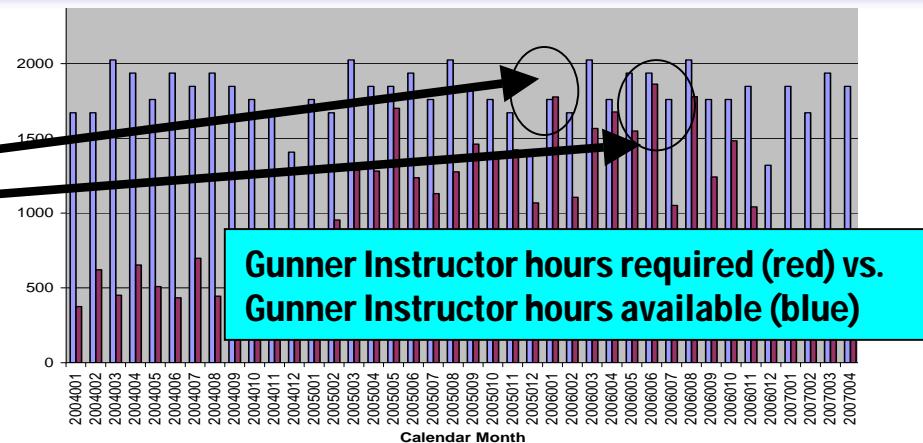


STAT model of current situation shows that Simulators are not the problem and that aircraft availability is not the problem:



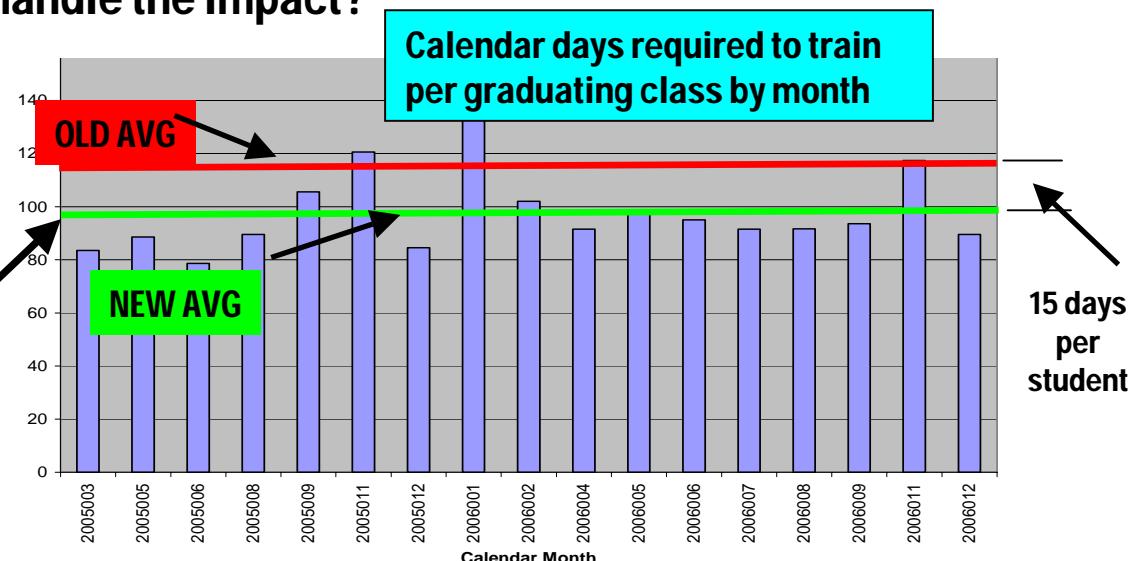
STAT Model Example

Could possibly use more instructors - a couple of months are rather constrained:



Another possibility exists – policy dictates that the gunnery range is open only on Mon, Wed, Fri. What would be the impact if the range were open an extra day of the week? Could the other resources handle the impact?

STAT shows that, without increasing resources (aircraft, simulators, instructors), a simple change in policy could yield an average time to train of 98.3 days or roughly 15 calendar days.





Questions??